

# Environmental Management Performance Report

June 2002



E0206055.1



**Department of Energy**  
Richland Operations Office



**Bechtel Hanford, Inc.**  
Environmental Restoration Contractor

Data as of month-end June

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## INTRODUCTION

The monthly Environmental Restoration (ER) Environmental Management Performance Report (EMPR) consists of four sections: Section A - Executive Summary, Section B – River Corridor Restoration, Section C - Central Plateau Transition, and Section D – Site Integration and Infrastructure. All data is current as of June 30, 2002.

**Section A – Executive Summary.** The Executive Summary begins with a description of notable accomplishments that are considered to have made the greatest contribution toward safe, timely, and cost-effective Hanford Site cleanup. Safety statistics are also included. Major commitments are summarized that encompass Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones and fiscal year 2002 (FY02) Environmental Management (EM) corporate performance measures and objectives. Fiscal year-to-date ER Project cost and schedule variance analysis is summarized. Issues that require management and/or regulator attention are addressed along with resolution status. The Key Integration Activities section highlights site activities that cross contractor boundaries, supporting overall Hanford Site goals. The Executive Summary ends with a listing of major upcoming planned key events (90-day look ahead).

**Section B – River Corridor Restoration.** This section contains more detailed Environmental Restoration Contractor (ERC) monthly activity information and performance status for the three Project Baseline Summaries (PBSs) within the River Corridor Restoration outcome. These three PBSs consist of RC01 - 100 Area River Corridor Cleanup, RC02 - 300 Area Cleanup, and RC05 - River Corridor Waste Management.

**Section C – Central Plateau Transition.** This section contains more detailed ERC monthly activity information and performance status for the one PBS within the Central Plateau Transition outcome. This PBS consists of CP01 – 200 Area Remediation.

**Section D – Site Integration & Infrastructure.** This section contains more detailed ERC monthly activity information and performance status for the two PBSs within the Site Integration and Infrastructure outcome. These two PBSs consist of SS03 – Groundwater Management and Monitoring, and SS04 – Groundwater/Vadose Zone (GW/VZ) Integration.

PBS SC01 – Near Term Stewardship is structured within the Site Stewardship outcome. Due to the minimal FY02 workscope identified for this PBS, SC01 performance data will be included in the Executive Summary cost/schedule overview.

Performance Incentive and Safety information in this report is identified with a green, yellow or red text box used as an indicator of the overall status. Green indicates work or issue resolution is satisfactory and generally meets or exceeds requirements, yellow indicates that significant improvement is required, and red indicates unsatisfactory conditions that require immediate corrective actions.

NOTE: This will be the final ERC performance update for Central Plateau/Site Integration and Infrastructure and River Corridor groundwater remedial action scope. The Central Plateau transition of this scope to Fluor Hanford, Inc. (FH) was completed on June 30 as planned. Future ER EMPR performance updates will include only the remaining ER River Corridor restoration and related scope.

# Section A - Executive Summary



*River Corridor Restoration*



*Central Plateau Transition*



*Site Integration & Infrastructure*

Data as of month-end June

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
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## **SECTION A – EXECUTIVE SUMMARY**

**Data as of month-end June**

### **NOTABLE ACCOMPLISHMENTS:**

#### **River Corridor Restoration:**

Overburden removal activities were completed for pipelines 25 and 26 in the 100 B/C Area. The concrete diversion structure at the north end of these pipelines was also demolished. Pipeline excavation was completed on the last section of pipe outside the F Reactor fence. Excavation and variance sampling of the 126-F-1 ash pit was also completed during June. The total amount of waste minimization realized in the ash pit was more than 59,000 metric tons (65,000 tons). Approval was received to accelerate subcontractor design for the 100 K Area liquid waste sites remediation.

During June, 285 drums of waste (uranium chips with oil and uranium oxide) were removed from the 618-4 Burial Ground. Excavation and loadout of contaminated soil and debris from the burial ground were also initiated.

During June, the Environmental Restoration Disposal Facility (ERDF) received 57,177 metric tons (63,027 tons) of waste, for a total of 436,635 metric tons (481,310 tons) received to date in FY02. A total of 3,297,247 metric tons (3,634,612 tons) have been disposed in ERDF since operations began in July 1996. ERDF Disposal personnel have worked 74 months without a lost-time accident, and the ERDF Transportation team has driven 10,011,259 kilometers (6,222,038 miles) without an at-fault vehicle accident.

Progress continued on interim safe storage (ISS) activities for D, DR, F, and H Reactors. The structural steel roof sections for Zones 2 and 4 were assembled on the ground and successfully lifted into place onto DR Reactor. Demolition of the D Reactor above-grade fuel storage basin (FSB) was also completed.

100 Area River Corridor surveillance and maintenance (S&M) activities continued through June. The B Reactor Removal Action Work Plan was completed ahead of schedule and was transmitted to the regulators, satisfying Tri-Party Agreement Milestone M-93-06.

The three River Corridor pump and treat systems operated above the planned 90% availability level in June. These three systems, along with the In Situ Redox Manipulation (ISRM) Project, were successfully transitioned to Fluor Hanford, Inc. (FH) on June 30 as planned.

#### **Central Plateau Transition:**

The ERC Central Plateau workscope was successfully transitioned to FH on June 30 as planned. B Plant and PUREX facilities were transitioned earlier to FH on June 3. More than 145,000 Central Plateau records were also transferred to FH.

All viewing room grating/walkways were removed and 95% of the process hood structural steel was removed from the highly contaminated 233-S Plutonium Concentration Facility. Three drums containing nitric acid waste were shipped to T Plant for treatment and disposal.

Herbicide/pesticide Phase II application was completed for the Central Plateau area. The last waste shipment was also completed for the 200 Area hexone tank stabilization task.

Nine reports were issued in support of the 200 Area remediation effort.

The two Central Plateau pump and treat systems operated above the planned 90% availability levels in June.

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**NOTABLE ACCOMPLISHMENTS continued:**

**Site Integration and Infrastructure:**

The ERC Site Integration and Infrastructure workscope was successfully transitioned to FH on June 30 as planned.

Direction was received from the U.S. Department of Energy (DOE) Richland Operations Office (RL) to proceed with the soil gas survey at the 618-10 Burial Ground. Results will be used in well location selection.

The revised groundwater monitoring plan for the 100 N Area *Resource Conservation and Recovery Act* (RCRA) facilities was transmitted to RL and the Washington State Department of Ecology (Ecology).

The rerun of the initial System Assessment Capability (SAC) assessment was completed in June. Requirements for future assessments to be performed with SAC were also identified.

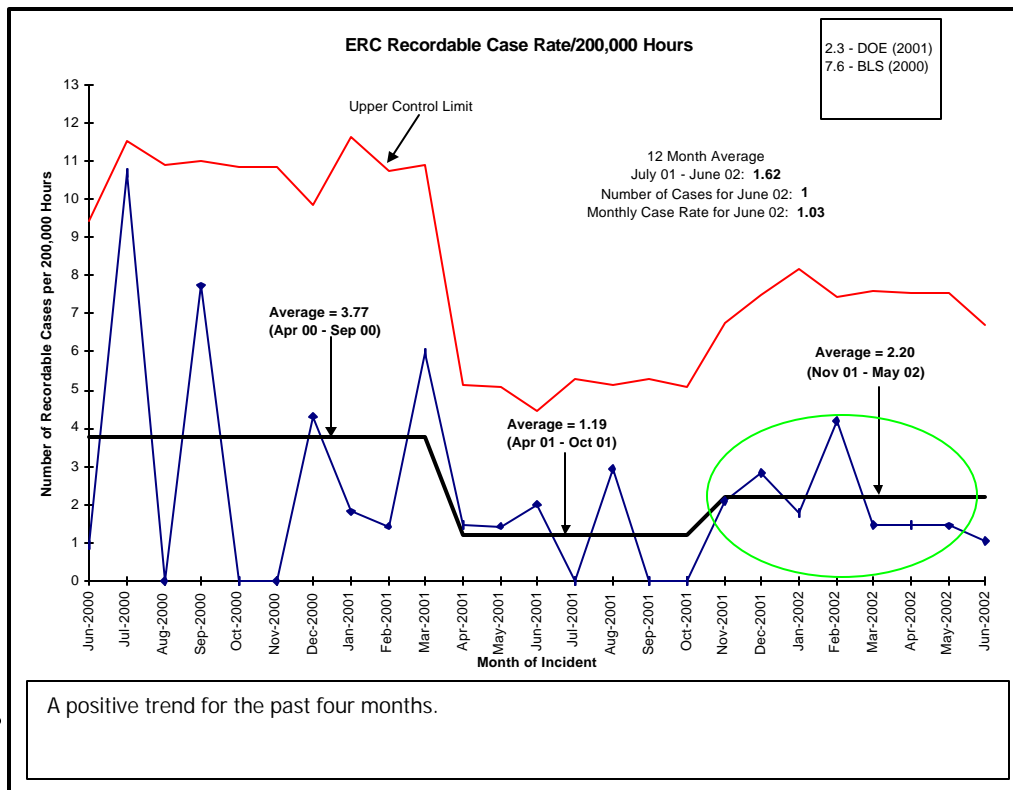
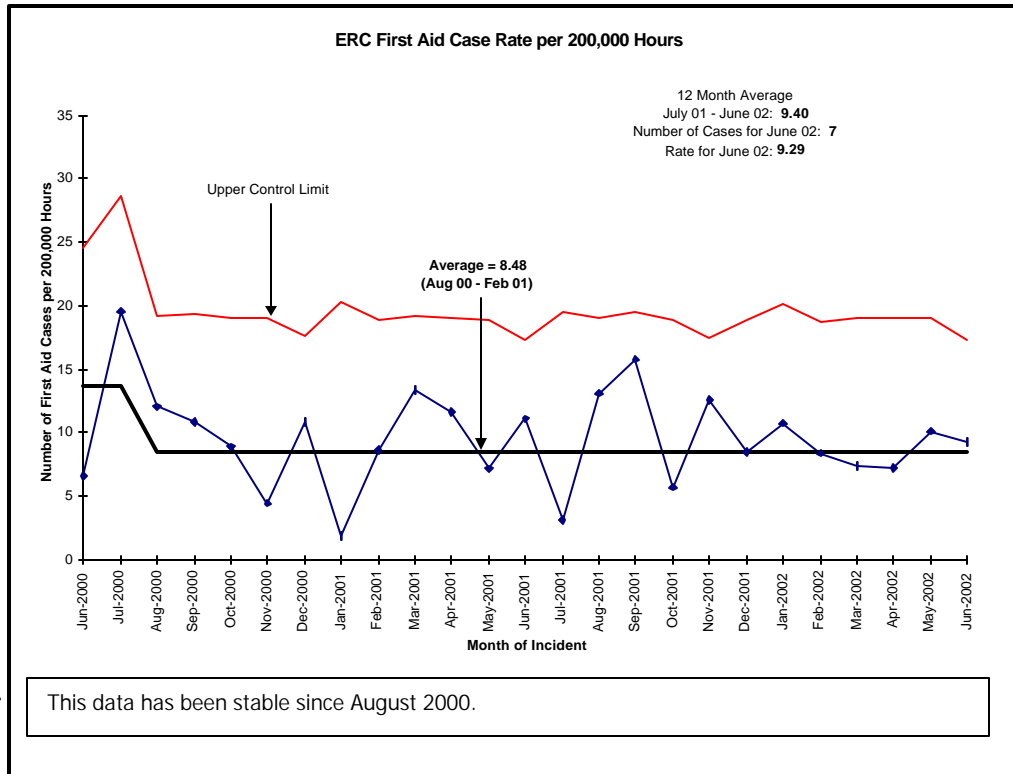
Field measurements (cross borehole radar, ground-penetrating radar, and neutron probe) were initiated at the clastic dike vadose zone transport study site during June.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### SAFETY:

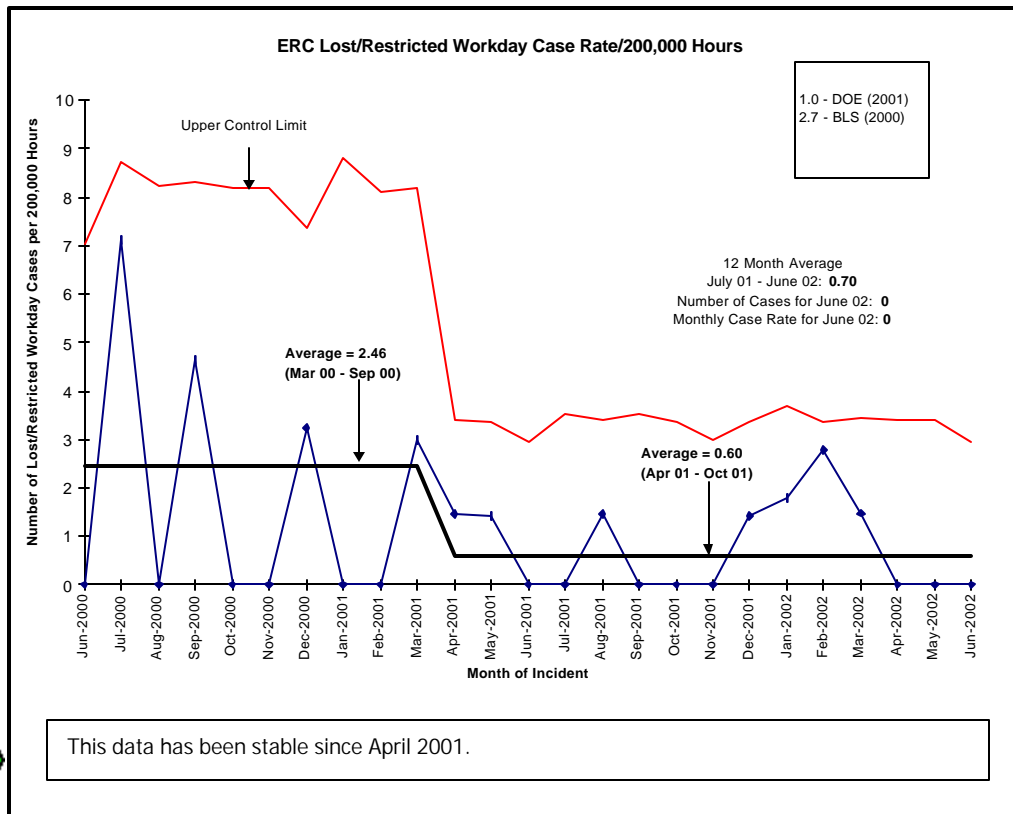


# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### SAFETY continued:



**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
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**SAFETY continued:**

The following actions have or are being taken by the Environmental Restoration Contractor (ERC) to focus on safety improvements:

- All accidents are thoroughly investigated. Emphasis is placed on causes and corrective actions that can be implemented where applicable. Timely discussions take place in safety meetings and plan of the day (POD) meetings. When investigations have been completed, the results of each investigation are sent to the Area Superintendents, Field Superintendents, and Supervisors to review at the PODs.
- Bechtel Hanford, Inc. (BHI) continues to look for trends and consult with corporate and other Bechtel National, Inc. (BNI) contacts for ways to enhance performance.
- The ERC has received approval from RL to set in motion the plans to obtain Voluntary Protection Program (VPP) Star Status recognition.
- The ERC continues to work closely with the Hanford Atomic Metal Trades Council (HAMTC) Safety Representative to resolve safety issues as they arise.
- Senior management continues to meet with small groups of employees in the field to discuss safety and personal commitment to safety.
- The Field Support General Superintendent and Project Safety Manager continue to visit different projects on a regular basis, meet with project team members, and conduct a safety walkaround. Area Superintendents for Decontamination and Decommissioning Projects/233-S, Surveillance, Maintenance, and Transition; and the Groundwater/Vadose Zone (GW/VZ) Integration Project are included in these walkarounds and will be visiting projects other than those for which they are responsible. Information from the walkaround is shared with the team and other Field Support personnel. Safety conditions requiring corrective action are assigned to project personnel or support personnel for action and are tracked to closure. This activity is ongoing.
- The ERC has invited "Brown Bag Speakers" to join employees during lunchtime at the 3350 George Washington Way facility to discuss various safety and health topics. Five sessions have been held this year, and future sessions will be held through FY02.
- Field Support personnel conduct weekly safety inspections, which are entered into a database and tracked to ensure all findings are closed. Daily inspections are also performed, and logged in the Project's Daily Log Book.
- The Field Support Subcontract's Manager, Safety Manager, and Quality Assurance personnel perform periodic management walkthroughs on BHI subcontractor operations.
- The BHI Subcontract Technical Representatives (STR) are implementing the use of a "Performance Review Form", which will be used to document subcontractor performance, safety, and contractual compliance.
- STRs are ensuring that all subcontractors are performing a daily site safety inspection, and documenting the activity for all ERC subcontract projects.
- STRs are ensuring that ERC subcontractors are performing and documenting a daily equipment inspection.
- The ERC continues to review and consult past surveillances and corrective actions for continued process improvement.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### SAFETY continued:

	FYTD	Current Period (5/13/02- 6/23/02)	Current Period Comments
First Aid	58	9	(2) strain, (1) puncture, (1) bite/sting, (2) contusion/abrasion, (1) laceration, (2) foreign body
OSHA Recordable	12	1	(1) hand pain
Restricted Workday Case	4	0	N/A
Lost Workday Case	1	0	N/A

#### Status:

- Through June 30, 2002, the ERC has worked approximately 640,000 hours without a lost workday case. The last incident occurred on January 29, 2002 and became a lost time on February 11, 2002. Continuous employee involvement is being fostered by the Integrated Environmental Safety and Health Management System (ISMS), VPP, labor alliance programs, e-mail communications, and one-on-one meetings with employees.
- An Incident Review Board (IRB) meeting was held on June 25 to discuss the effectiveness of the monthly IRB meetings and to status action items assigned from previous IRB meetings. The following benefits of the IRB meetings were identified:
  - Provides additional lessons learned which can be used throughout the ERC.
  - Used as a forum to discuss chronic activities.
  - Provides interaction between workers and management.
  - Maintains employee focus on safety.
- ERC task teams were established to review oversight of subcontractors and flowdown of environmental, safety, and health requirements to subcontractors. A management review of both processes was performed. The corrective action plan is complete. Immediate corrective actions are now being worked and is expected to be completed on schedule. Long-term corrective actions will provide for effective communication of requirements and positive subcontractor oversight. These corrective actions are scheduled to be completed by mid-summer.
- The ERC has recognized a trend in sprain and strain injuries. Heightened awareness regarding proper lifting techniques, the use of mechanical devices for lifting heavy or awkward loads, proper planning, and increased participation in low-impact stretching exercises prior to engaging in lifting or pulling activities are being utilized to reduce these types of injuries.
- A VPP communication plan has been completed and is being presented to project and office personnel during employee safety meetings, POD meetings, and staff meetings. A strategic plan is being formulated on conducting a VPP self-assessment later this summer that will provide information relative to ERC strengths and weaknesses.
- The STRs were provided an electronic link to the Occupational Safety and Health Act of 1970 (OSHA) 1910 and 1926 Standards. Additionally, a hard-bound copy of the current OSHA Health and Safety Standards is available to STRs through Industrial Hygiene staff for use to enhance subcontractor oversight.
- BHI STRs were provided a draft summary checklist for subcontract Exhibit G, to assist the STR in identifying subcontractor safety and health requirements specified in Exhibit G of the subcontract documents.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### SAFETY continued:

- The radiological control metric for June remains positive. There was one personal contamination event associated with radiological occurrence report RL-BHI-DND-20002-0009. The employee was working in a posted Contamination Area at the 105-DR Reactor building. The worker was wearing a full set of cloth anti-contamination personal protective equipment (PPE) over his personal clothing. During the egress survey, an RCT discovered the contamination on the worker's personal pants (denim jeans). Upon using tape compressions on the contaminated location, it was discovered that the contamination was actually a radioactive particle reading 20,000 dpm beta-gamma direct.

#### Integrated Environmental Safety and Health Management System (ISMS):

##### Status:

Documentation was provided to RL to ensure the safety of human health and the environment when applying herbicides on site. Communications between site contractors and proper use of procedures for employee notification prior to herbicide applications were also discussed.

Audits were completed and reports issued for the Lionville Laboratory and Severn Trent St. Louis Laboratory. The Lionville Laboratory was a BHI-led audit including Eberline Services representatives from their Richmond, California Laboratory as part of the Audit Team. Four findings and eight observations were noted during the audit. The Severn Trent St. Louis Laboratory audit was led by BHI with participants from Pacific Northwest National Laboratory (PNNL) on the audit team. This audit identified 13 findings (primarily administrative in nature) and 11 observations.

BHI participated in the Fluor Hanford, Inc. (FH) site RCRA Permit Inspection of the 100 Areas along with RL's Regulatory Compliance and Analysis group and Ecology. No items/issues were found that met the reporting criteria of the site-wide RCRA Permit.

An assessment was performed on the ERC RadCon Self-Assessment program, focusing on the implementation of corrective actions instituted by RadCon in response to an assessment performed by RL. The assessment also assessed compliance to the requirements of BHI-MA-02, *ERC Project Procedures*, Procedure 2.7, "Self-Assessment" as a measure of the "effectiveness" or rigor and robustness of the program. Implementation of identified corrective actions and compliance to BHI-MA-02 was substantial and did not result in any corrective action reports (CARs).

An assessment of ERC Training was completed and a report issued. The assessment resulted in the issuance of seven CARs that impacted all functions and projects. A Corrective Action Task Team was established to facilitate and coordinate resolution of the problems identified.

The Quality Assurance Manual (BHI-QA-01) was updated and submitted to RL as required by DOE Order 414.1A and 10 CFR 830, Subpart A. Changes included organizational changes, necessitated by the Central Plateau transition, and some reference changes.

Twenty-eight self-assessments, eleven occurrence reports, five Quality Services surveillance reports, four corrective action requests, two management walkthroughs, three independent assessments, two facility representative reports were screened, and one issue brought to the attention of management for PAAA compliance determinations.

BHI continues toward full implementation of the ISMS System Performance Objectives, Measures, and Indicators Process (hereafter referred to as metrics) that BHI communicated to RL in document BHI-01550 (reference 3). To date, BHI is collecting data for 20 of the metrics, with data collection for the remaining four scheduled to commence during the next three months. Additionally, the processes that BHI committed to provide to address RL's "opportunities for improvement," and to institutionalize this process are either developed or scheduled for development over the same period.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### **SAFETY continued:**

Significant accomplishments on this effort during June included:

Initiated data collection for the following metrics:

- ES&H Performance Measures - Management System Effectiveness - Effective Communication
- ES&H Performance Measures - Environmental & Worker Protection Effectiveness - Job Hazards Analysis
- Compliance & Oversight Performance Measures - Safety Injury/Illness Performance

Thus, all of the ES&H Infrastructure and ES&H Management System Effectiveness metrics are implemented. Two of the Environmental and Worker Protection Effectiveness metrics, Emergency Preparedness and Voluntary Protection Program are scheduled to report data in July. At that time, all the ES&H Performance Measures will be implemented.

Five of seven Compliance and Oversight metrics have been implemented. The remaining Compliance and Oversight metrics, Self-Assessment Performance-Effectiveness of Self-Assessment Reports and Effectiveness of Corrective/Preventive Actions are scheduled for implementation in July and August respectively.

Work on the ERC ISMS Metrics Website continued during the month. The Webpage architecture and several input screens were designed and are being tested. As mentioned in May's report, the Website will be used to input data, review current and historical data as well as metric definition information, suggest metric enhancements or changes, and provide other similar metric-related information.

#### **PROCESS IMPROVEMENTS:**

##### **Six Sigma:**

##### **Status:**

- Implementation of the Six Sigma program across the ERC continued.
- The Procedures Development PIP (PIP #2) continues to reap benefits for the ERC. The to-date cost savings/avoidance is over \$2.6 million.
- Initiated the "Failure Modes and Effects Analysis" (FMEA) for RL review and approval of the Safety Basis document development process.
- Provided Six Sigma support on a RL PIP for the RL Finance group month-end closing process. A BHI Black Belt led the group through a FMEA to identify potential key causes of delays in the process.
- Two BHI personnel represented BHI at the Six Sigma leadership conference. The representatives supported three working groups: Ensuring Six Sigma, PBL Sustainability, and PIP Pipeline Development working group.
- One employee completed the Six Sigma Black Belt training program on June 21.

Process Improvement Projects (PIPs) and status include:

- The BNI / EM Integration Waste Disposition Panel (comprised of waste management subject matter experts) conducts monthly teleconferences across the complex. The following issues on the Nevada Test Site (NTS) / Hanford Virtual Waste Acceptance PIP were discussed:
  - The panel is working on standardizing the waste profile form.
  - Conditional approval of Hanford generators to ship waste to NTS are yet to be resolved.
  - Discussions on the need to identify "Approval Authority" continue.
- The Radiological Work Control Documentation PIP (PIP #6) was completed on June 11.
- The Waste Management Data Processing PIP (PIP #7) is in the "Improve" phase and about 70% complete.
- Each participating BNI / DOE site is evaluating the Safety Basis Process (PIP #8) and BHI is developing a "virtual" (standardized) work flow process for Safety Basis development.
- The Planning & Controls Monthly Reporting PIP (PIP #9) is in the "Analyze" phase and about 50% complete.
- The Subcontractor Management PIP (PIP #10) is in the "Analyze" phase and about 35% complete.
- For the RAWD Container Handling PIP (PIP #11), a simulation (model) is being developed to assess impact of factors affecting the daily transportation capability.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### MAJOR COMMITMENTS:

**Tri-Party Agreement Milestones:** 17 Tri-Party Agreement milestones were planned for completion during FY02 (16 FY02 planned milestones and 1 "to be determined" [TBD] dated milestone). Through June, 16 milestones have been completed; 15 ahead of schedule, and 1 on schedule. During this fiscal year, three outyear milestones were accelerated and completed early, and three planned FY02 milestones have been deleted per the Tri-Party Agreement change control process.

On June 5, four Central Plateau Tri-Party Agreement change packages were approved, which deleted two FY02 milestones. The two milestones deleted were: M-15-40A, Complete U Pond/Z Ditches Cooling Water Group Field Work Through Sample Collection and Analysis (due September 30); and M-15-42B, Submit 200-TW-2 Operable Unit Draft A Remedial Investigation Report to Ecology (due September 30).

On June 27, Tri-Party Agreement Milestone M-93-06, Complete Removal Action Work Plan/S&M Plan for B Reactor (due June 30), was achieved upon document submittal to the regulators.

The regulators have agreed to extend the completion date for M-16-27C, "Complete 100-HR-3 Phase III ISRM Barrier Emplacement" (due September 30) to June 30, 2003. A change request was forwarded to the regulators on June 20 for approval. This milestone will transition to FH on June 30 as part of the RL-directed Central Plateau transition.

Total Tri-Party Agreement Milestones Due in FY02	17*
Total Planned Through June	13
Total Completed Through June	16

\*Includes a "TBD" milestone

Remaining Tri-Party Agreement Milestones to be Completed in FY02	1
Forecast Ahead of Schedule	0
Forecast On Schedule	0
Forecast Unrecoverable (change request is in final signature approval)	1

#### EM Corporate Performance Measures:

	DWP FY02	FY02 Mgmt Commitments	Current Baseline	Completed YTD
Waste Site Excavations	13	10*	10	8
Technology Deployments	0	3	6	6

\*HQ IPABS currently reporting 12 (HQ change request pending). Performance measure commitments revised due to formal funding guidance received from RL in January and required project rebaselining.





# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### PERFORMANCE OBJECTIVES:

Comprehensive performance incentives are noted below. Specific River Corridor and Central Plateau performance measures are identified in the following report sections.

	Comprehensive Measure	Fee Allocation	Task	Status
	<b>Safety</b>	Negative fee only up to 50% of fee available for this PI.	Protect worker safety and health, public safety and health, and the environment.	No significant regulatory non-compliances and/or deficiencies identified in June. BHI's progress continues toward full implementation of the ISMS metrics.
	<b>Financial Excellence</b>	Incentive fee up to 20% of fee available for this PI.	The Contractor shall fulfill its contractual obligation in a fiscally responsible manner.	BHI continues to meet their contractual obligation in a fiscally responsible manner, including the area of cost/price.
	<b>Effective Leadership</b>	Incentive fee up to 30% of fee available for this PI.	Provide corporate leadership to improve management effectiveness, collaborate and participate proactively with our customers, value workers, and provide a supportive environment.	Effective leadership was demonstrated by consistently providing excellent support and products for media relations, public involvement, and general communications.
	<b>Transition Activities</b>	Incentive fee up to 50% of fee available for this PI.	Plan for and aggressively support a seamless transition of work from BHI to FH and from BHI to the new River Corridor Contractor.	Transfer Agreement with FH signed on June 27. Central Plateau transition was successfully completed on June 30.

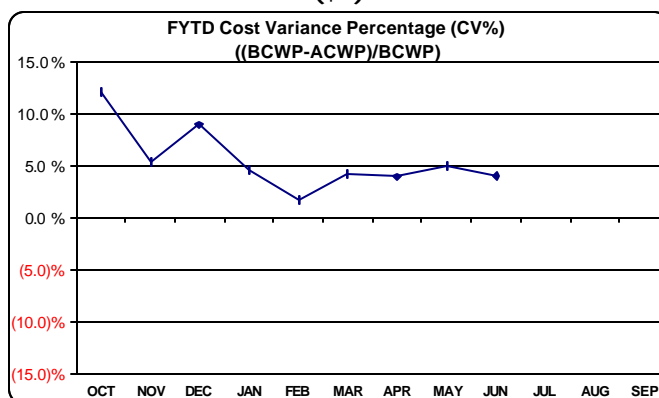
# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

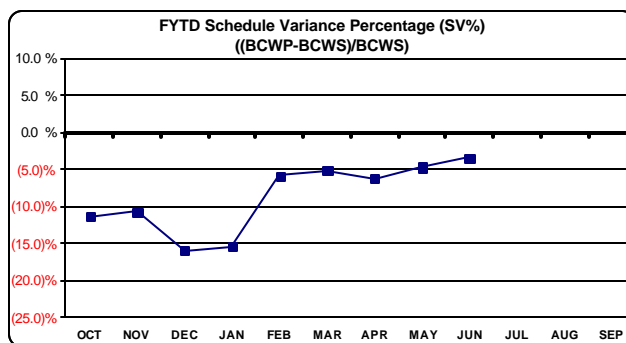
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#### TOTAL ERC COST/SCHEDULE OVERVIEW:

#### FY02 ER PERFORMANCE SUMMARY FYTD JUNE 2002 (\$K)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	EAC
<b>CURRENT PERIOD</b>													
ACWP	10,237	12,390	11,786	13,451	13,111	14,424	13,387	12,790	16,193				
BCWP	11,635	12,272	13,862	12,378	11,904	16,591	13,727	14,402	15,791				
<b>FISCAL YEAR TO DATE</b>													
ACWP	10,237	22,627	34,413	47,864	60,975	75,399	88,786	101,576	117,769				
BCWP	11,635	23,907	37,769	50,147	62,050	78,643	92,367	106,771	122,562				
CV	1,398	1,280	3,356	2,282	1,075	3,244	3,581	5,195	4,793				
CV%	12.0%	5.4%	8.9%	4.6%	1.7%	4.1%	3.9%	4.9%	3.9%				
EAC (Cumulative)	10,237	22,627	34,413	47,864	60,975	75,399	88,786	101,576	117,769	128,111	138,067	151,368	151,971



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	10,994	11,433	14,984	13,383	12,125	15,162	12,865	12,486	13,558	11,837	12,074	14,835
DWP (Accum)	10,994	22,427	37,411	50,794	62,919	78,081	90,946	103,432	116,990	128,827	140,901	155,736
<b>CURRENT PERIOD</b>												
BCWS	13,121	13,631	18,145	14,309	6,629	17,063	15,535	13,523	14,917	8,238	8,647	11,442
BCWP	11,635	12,272	13,862	12,378	11,904	16,591	13,727	14,402	15,791			
<b>FISCAL YEAR TO DATE</b>												
BCWS	13,121	26,752	44,897	59,206	65,835	82,897	98,433	111,956	126,873	135,112	143,759	155,201
BCWP	11,635	23,907	37,769	50,147	62,050	78,643	92,367	106,771	122,562			
SV	(1,486)	(2,845)	(7,128)	(9,060)	(3,785)	(4,254)	(6,066)	(5,185)	(4,311)			
SV%	-11.3%	-10.6%	-15.9%	-15.3%	-5.7%	-5.1%	-6.2%	-4.6%	-3.4%			

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### TOTAL ERC COST/SCHEDULE OVERVIEW continued:

#### FY02 ER PBS PERFORMANCE SUMMARY

FYTD JUNE 2002

(\$K)

	FY02 DWP	CURRENT	FYTD			YTD SCHEDULE VARIANCE		YTD COST VARIANCE		EAC
	BCWS	BCWS	BCWS	BCWP	ACWP	\$	%	\$	%	
RC01	68,776	71,171	55,724	53,675	53,142	-2,049	-3.7%	533	1.0%	71,906
RC02	9,444	10,328	6,165	5,234	5,294	-931	-15.1%	-60	-1.1%	10,216
RC05	24,259	27,939	19,263	19,180	18,574	-83	-0.4%	606	3.2%	27,372
<b>RCR-Subtotal</b>	<b>102,479</b>	<b>109,438</b>	<b>81,152</b>	<b>78,089</b>	<b>77,010</b>	<b>-3,063</b>	<b>-3.8%</b>	<b>1,079</b>	<b>1.4%</b>	<b>109,494</b>
CP01	32,663	25,565	25,565	25,395	22,776	-170	-0.7%	2,619	10.3%	23,101
<b>CPT-Subtotal</b>	<b>32,663</b>	<b>25,565</b>	<b>25,565</b>	<b>25,395</b>	<b>22,776</b>	<b>-170</b>	<b>-0.7%</b>	<b>2,619</b>	<b>10.3%</b>	<b>23,101</b>
SS03	17,141	12,300	12,300	11,586	10,934	-714	-5.8%	652	5.6%	11,894
SS04	3,382	7,819	7,819	7,458	7,027	-361	-4.6%	431	5.8%	7,412
<b>SI&amp;I-Subtotal</b>	<b>20,523</b>	<b>20,119</b>	<b>20,119</b>	<b>19,044</b>	<b>17,961</b>	<b>-1,075</b>	<b>-5.3%</b>	<b>1,083</b>	<b>5.7%</b>	<b>19,306</b>
SC01	71	79	37	34	22	-3	-8.1%	12	35.3%	70
<b>SS-Subtotal</b>	<b>71</b>	<b>79</b>	<b>37</b>	<b>34</b>	<b>22</b>	<b>-3</b>	<b>-8.1%</b>	<b>12</b>	<b>35.3%</b>	<b>70</b>
<b>ERC TOTAL</b>	<b>155,736</b>	<b>155,201</b>	<b>126,873</b>	<b>122,562</b>	<b>117,769</b>	<b>-4,311</b>	<b>-3.4%</b>	<b>4,793</b>	<b>3.9%</b>	<b>151,971</b>

#### Schedule Variance Summary:

Through June, the ER Project is \$4.3M (-3.4%) behind schedule. The negative schedule variance is attributed to delays in roof subcontractor key document submittals for DR Reactor safe storage enclosure (SSE), remedial action at 618-4 burial ground due to discovery of LDR material, 200 Area groundwater monitoring and Science and Technology (S&T) efforts, and additional hot spots (suspect fuel pieces) at the F Reactor fuel storage basin (FSB).

#### Cost Variance Summary:

At the end of June, the ER Project had performed \$122.6M worth of work, at a cost of \$117.8M. This results in a favorable cost variance of \$4.8M (+3.9%). The positive cost variance is attributed to lower labor and sampling costs at 100 Area remediation sites, labor savings at the 233-S facility decommissioning project, herbicide application and 100/200 Area surveillance labor savings, 200 Area technology deployment savings at U Pond/Z Ditches, and offsetting Reactor ISS downtime overrun due to additional hot spots found in the F Reactor FSB.

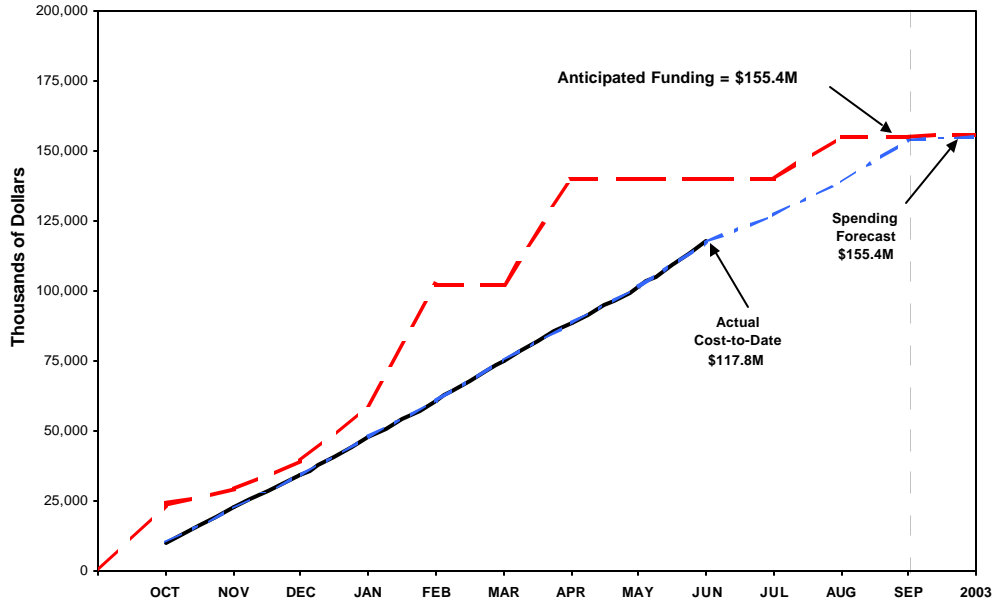
# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

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#### TOTAL ERC COST/SCHEDULE OVERVIEW continued:

#### FY02 FUNDING VS. FORECAST EXPENDITURES (EAC)



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	2003	TOTAL
	ANTICIPATED FUNDING*	24,017	29,181	39,603	59,223	102,555	102,655	140,037	140,307	140,307	140,307	155,352	155,352	Est. Outyr. ETC	
	ACTUAL/EAC ON APPROVED SCOPE														
1	Actual Cost Cumulative Through June	10,237	22,627	34,413	47,864	60,976	75,400	88,787	101,576	117,769					
2	Current Monthly Actuals/ EACs	10,237	12,391	11,786	13,451	13,111	14,424	13,387	12,790	16,193	10,395	10,495	13,311		
3	Cumulative Actuals/EACs on Approved Scope	10,237	22,628	34,414	47,865	60,976	75,400	88,787	101,577	117,770	128,165	138,660	151,971		151,971
JULY FY2002 APPROVED BCPs (Through 7/16/02)															
4	None.														0
5	Subtotal Approved Scope Changes										0	0	0	0	0
JULY FY2002 PENDING BCPs															
6	RC01 BCP-22093 Accelerate 126-F-1 Ash Pit Remediation									16	20				36
7	RC01 BCP-22X05 Accelerate 116-N-1 Crib & Plume												958	x	958
8	RC01 BCP-22105 Accelerate 118-K-1 Burial Grounds Design									30	30				60
9	RC01 BCP-22107 116-F-1 Lewis Canal Waste Minimization										100	51			151
10	RC01 BCP-22X07 Excavate Additional 5.2K Tons at 100 BC Area										20	100			120
11	RC01 BCP-22X08 Excavate Additional 6.9K Tons at 100 F Area										50	99			149
12	RC02 BCP-22098 Additional Work Scope @ 618-5 Burial Grounds											(150)	(131)		(281)
13	RC02 BCP-22100 618-4/5 Burial Ground LDR Waste									100	(250)	(142)			(292)
14	RC05 BCP-22102 Reduction of ERDF Transportation Contract										(120)	(120)	(128)		(368)
15	RC01 BCP-22110 Additional Excavation Costs at H Reactor Fuel Storage Basin									40	40				80
16	RC01 BCP-22103 Extending Asbestos Contract for 100-N Building										100	200	100		400
17	RC01 BCP-22X01 Install Signage Along River Frontage											114			114
18	RC01 BCP-22109 Sampling Cost/Disposal of Non-recyclable Oil									20	20				40
19	RC01 BCP-22X06 Excavators Replacement at (Reactor ISS)											920			920
20	RC01 BCP-22019-R1 Additional Hot Spots & Fuel Elements at F Reactor Fuel Storage Basin (Final Reconciliation)										487				487
21	RC01 CP01 SS03 SS04 BCP-22104 Reconciliation of Groundwater/Vadose Zone Integration Project Behind Schedule Scope from ERC Baseline and Transfer Scope to Fluor Hanford, Inc.										(453)				(453)
22	SS03 SS04 BCP-22106 Reconcile Groundwater/Vadose Zone Integration PNNL Behind Schedule Scope from ERC Baseline										(829)				(829)
23	CP01 BCP-22108 Reconcile 200 Area S&M-T Behind Schedule Scope for ERC Baseline										(37)				(37)
24	ALL BCP-22X02 Prior Years Rebill Adjustments/Provisional Rate Reviews												(368)		(368)
25	ALL BCP-22X03 Retroactive HAMTC Bargaining Agreement Provision											142			142
26	ALL BCP-22X04 Efficiencies From Central Plateau Transition												(124)		(124)
27	ALL BCP-22096 Implementation of the River Corridor Contract Transition											257	1,026		1,283
28	ALL BCP-22101 Reduced Work Scope due to Streamlining FY03 DWP												(150)		(150)
29	ALL Pending Scope Additions, Deletions, Etc.									450	450	443			1,343
30	Subtotal Approved BCPs + Pending BCPs									(683)	1,153	1,885	1,026		3,381
31	Current Monthly Actuals/EACs + July FY 2002 Approved + Pending BCPs	10,237	12,391	11,786	13,451	13,111	14,424	13,387	12,790	16,193	9,712	11,648	15,196		
32	Cumulative Actuals/EACs + July FY 2002 Approved + Pending BCPs	10,237	22,628	34,414	47,865	60,976	75,400	88,787	101,577	117,770	127,482	139,130	154,373	1,026	155,352

\* BCP-22X05 116-N-1 Crib excavation for \$958K will be started in September FY02 but will continue into FY03  
 1) BCP-22096 implementation of River Corridor Contract Transition is scheduled to start in FY02

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**ISSUES (REGULATORY/EXTERNAL/DOE):**

See individual Outcome sections.

**KEY INTEGRATION ACTIVITIES:**

Central Plateau transition entered its final month with early transition of B Plant and PUREX on June 3. All remaining Central Plateau transition scope was successfully transitioned by June 30. The Transfer Agreement was signed by BHI and FH, and delivered to RL on June 27.

**UPCOMING PLANNED KEY EVENTS:**

**River Corridor Restoration:**

Transition ER River Corridor workscope upon award of new contract.

## Section B - River Corridor Restoration

*RC01 - 100 Area River Corridor Cleanup*

*RC02 - 300 Area Cleanup*

*RC05 - River Corridor Waste Management*

F Reactor Fuel Storage Basin Fixative Application



Placement of Additional Sections of DR Reactor Roof



Partially Demolished Concrete Diversion Structure Block in the 100 B/C Area



618-4 Burial Ground Excavation and Loading of Contaminated Soil with Drum Loading Activities in the Background

Data as of month-end June

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## **SECTION B – RIVER CORRIDOR RESTORATION**

**Data as of month-end June**

### **ACCOMPLISHMENTS:**

#### **100 Area River Corridor Cleanup (RC01):**

In the 100 B/C Area, overburden removal activities were completed for pipelines 25 and 26 (1.7-meter [66-inch] steel pipe) that ran from C Reactor to the 116-C-5 tanks. The concrete diversion structure at the north end of pipelines 25 and 26 was also demolished. Shearing and loading of pipeline 11 (1.5-meter [60-inch] steel pipe) are nearing completion.

In the 100 F Area, excavation and removal of the 1.5-meter (60-inch) steel pipeline from F Avenue to the F Reactor fence line were completed. Excavation of the concrete structures and the steel pipe on the 1.1-meter (42-inch) steel pipeline outside the F Reactor fence was also completed. This is the last section of pipe outside the reactor fence. Excavation and variance sampling of the 126-F-1 ash pit were completed during June. The total amount of waste minimization realized in the ash pit was 59,197 metric tons (65,254 tons). Cleanup verification packages (CVPs) for the 107-F retention basin, 100-F-2 strontium gardens, and the 116-F-4, -11, -15, and -16 french drains were sent to the U.S. Environmental Protection Agency (EPA) for review.

Two trenches were excavated at the 118-F-5 Burial Ground on June 25. Cobble and sand fill was encountered in the first few feet of the trenches, and the remaining part of the trenches appeared to be undisturbed soils. These observations validate previously completed geophysical surveys of the area. Samples for laboratory analyses were collected at the bottom of each trench prior to backfilling.

A BCP was approved for acceleration of subcontractor design for remediation of the 100 K Area liquid waste sites.

Excavation of plume 4 continued through June in the 100 N Area. Excavation of plume 5 was also initiated.

At D Reactor, demolition of the above-grade sections of the FSB was completed.

DR Reactor safe storage enclosure (SSE) work continued. During June, the structural steel roof sections for Zones 2 and 4 were assembled on the ground and successfully lifted into place.

At F Reactor, radiological verification surveys were performed in the FSB. One discrete item was found that exhibited all of the characteristics of fuel found to date in the FSB, with the exception of its color. The item was further characterized and handled as fuel, and shipped to K Basins on June 20. Approval was received from RL and Hanford Site Security to lower the security requirements at the F Reactor FSB to allow fence removal at the southeast corner of the F Reactor complex. This will allow remedial action operations to proceed in this area.

Removal of the top 3 meters (10 feet) of fill material in the H Reactor FSB was initiated in mid-June. Approximately 75% of the fill material had been removed by the end of June.

100 Area River Corridor S&M activities continued through June. The B Reactor Removal Action Work Plan was completed ahead of schedule and was transmitted to the regulators, satisfying Tri-Party Agreement Milestone M-93-06. Contracts were awarded for the B Reactor hazards mitigation upgrades. The B Reactor interim safe storage (ISS) engineering evaluation/cost analysis (EE/CA) was also initiated in June.

All planned 17 FY02 well injections were completed in support of the In Situ Redox Manipulation (ISRM) Phase III project.

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**ACCOMPLISHMENTS continued:**

In the 100 Area, the three groundwater pump and treat systems (100-HR-3, 100-KR-4, and 100-NR-2) operated above the planned 90% availability levels in June processing approximately 57.1 million liters of groundwater and removing approximately 3.97 kilograms of chromium and 0.1 curie of strontium. Since system inception, these three pump and treat systems have processed over 3.5 billion liters of groundwater, removing approximately 304 kilograms of chromium and 1.2 curies of strontium. These three 100 Area pump and treat systems, along with the ISRM Project, were successfully transitioned to FH on June 30 as part of the RL-directed Central Plateau transition.

**300 Area Cleanup (RC02):**

During June, 285 drums were removed from the 618-4 Burial Ground. Waste consisted of 144 drums of uranium chips with oil, 135 drums of uranium oxide, and 6 drums of anomalous waste. Inspection and sampling were completed for the remaining drums from the 1998 inventory. Drum disposal will be based on characterization results. Excavation and loadout of contaminated soil and debris from the 618-4 Burial Ground were also initiated in June.

On June 12, EPA hosted a workshop that provided a briefing on the 300 Area uranium Kd/leach study results and conceptual site model work progress. The workshop generated interactive discussions among participants (RL, regulators, contractors, independent technical reviewers) resulting in a path forward for continuing with the uranium conceptual site model in support of the 300 Area remediation.

**River Corridor Waste Management (RC05):**

During June, ERDF received 57,177 metric tons (63,027 tons) of waste, for a total of 436,635 metric tons (481,310 tons) received to date in FY02. A total of 3,297,247 metric tons (3,634,612 tons) have been disposed in ERDF since operations began in July 1996. ERDF Disposal personnel have worked 74 months without a lost-time accident, and the ERDF Transportation team has driven 10,011,259 kilometers (6,222,038 miles) without an at-fault vehicle accident.

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**MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS):**

<b>TPA Milestone</b>	<b>Description</b>	<b>Due Date</b>	<b>(F)/(A) Date</b>
<b>M-16-00F</b>	Establish Date for Completion of All 100 Area Remedial Actions	12/31/01	12/31/01 (A)
<b>M-16-27B</b>	Complete 100-HR-3 Phase II, ISRM Barrier Emplacement (Planning, Well Installation, and Barrier Emplacement)	12/31/01	11/20/01 (A)
<b>M-93-12*</b>	Issue 105-DR Disposition Competitive Procurement Package for Ascertaining the Most Effective and Efficient Approach to FEIS ROD Selected Alternative Implementation (....)	2/28/02	Deleted
<b>M-16-26B</b>	Complete Remediation and Backfill of 51 Liquid Waste Sites in the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, and 100-HR-1 Operable Units and Process Effluent Pipelines in the 100-DR-1, 100-DR-2, and 100-HR-1 OUs. Complete Revegetation of 36 Liquid Waste Sites in the 100-BC-1, 100-DR-1, 100-DR-2, and 100-HR-1 OUs as Defined in RDR/RAWP for the 100 Area	3/31/02	12/11/01 (A)
<b>M16-41B</b>	Submit Closeout Verification Package for JA Jones 1 and 600-23 Waste Sites for EPA Approval	3/31/02	11/30/01 (A)
<b>M-16-03A</b>	Establish Date for Completion of 300 Area Remedial Actions	6/30/02	4/30/02 (A)
<b>M-93-06</b>	Complete Removal Action Work Plan/S&M Plan for B Reactor	6/30/02	6/27/02 (A)
<b>M-16-03G</b>	Establish an Environmental Restoration Disposal Facility (ERDF) Staging Area that is Ready to Receive Drummed Waste from the 618-4 Burial Ground in Accordance with an ERDF Record of Decision Amendment	9/30/02	4/10/02 (A)
<b>M-16-27C**</b>	Complete 100-HR-3 Phase III, ISRM Barrier Emplacement (Planning, Well Installation, and Barrier Emplacement)	9/30/02	6/30/03 (F)
<b>M-16-41C</b>	Complete Backfill and Regrading of JA Jones 1 and 600-23. Revegetation will occur during the following planting season	TBD	12/14/01 (A)
<b>M-93-14</b>	Initiate Negotiation of Remaining Surplus Reactor Disposition Schedules	6/30/03	4/30/20 (A)
<b>M-93-15</b>	Complete Negotiation of Remaining Surplus Reactor Disposition Schedules	12/31/03	4/30/02 (A)

\*M-93-12 was deleted per Tri-Party Agreement change request M-093-01-02 on April 30.



\*\*Ecology has agreed to extend the completion date to June 30, 2003. A change request was forwarded to the regulators on June 20 for approval. Responsibility for accomplishment of this milestone was transitioned to FH on June 30 as planned.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### PERFORMANCE OBJECTIVES:

PI	Task (RL formally transmitted FY02 PIs on 4/30/02)
 <b>*River Corridor Remedial Action:</b> Reduce Risk to Columbia River from Groundwater Contamination	Process 546,000 tons of contaminated soils and debris from as many as 20 targeted waste sites in the Columbia River Corridor and dispose in ERDF by 9/30/02. <b>Status:</b> 14K tons behind schedule due to wind curtailment of disposal operations. Full recovery expected.
	Construct drum staging area at ERDF and complete removal of all drums as defined in the FY02 DWP from 618-4 to ERDF staging area by 9/30/02. <b>Status:</b> Staging area completed on April 10. 687 drums received through June.
	Submit CVPs for 19 waste sites to DOE for transmittal to the regulators by 9/30/02. <b>Status:</b> CVPs have been completed. NOC will be prepared.
	Process 70,000 additional tons (for a total of 616,000 tons) of contaminated soils and debris from as many as 20 targeted waste sites and associated plumes in the Columbia River Corridor and dispose in ERDF by 9/30/02. <b>(Stretch)</b> <b>Status:</b> Work will commence upon completion of baseline tonnage.
	Conduct ISS activities at D Reactor. <b>Status:</b> Recovery schedule has been implemented.
 <b>**Reactor Interim Safe Storage:</b> Disposition Surplus Building	Conduct ISS activities at DR Reactor. <b>Status:</b> Subcontractor will complete roof by September 30.
	Conduct FY01 carryover ISS activities at F Reactor. <b>Status:</b> Completed.
	Conduct ISS activities at H Reactor. <b>Status:</b> Recovery schedule has been implemented.
	Conduct ISS activities at F Reactor. <b>Status:</b> This PI will require revision due to additional hot spots encountered during FSB demolition than originally noted in PI.

\*CV <5.0%; SV% <7.5% measured at the grouped RC01, RC02, RC05 PBS level.

\*\*CV <5.0%; SV% <7.5% measured at the RC01 PBS level.

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**PERFORMANCE MEASURES/METRICS:**

**FY02 Performance Measures Summary:**

<b>PBS</b>	<b>Description</b>	<b>FY02 Mgmt Commit</b>	<b>Current Baseline Due Date</b>	<b>Forecast (F) Actual (A) Date</b>
<b>RC01</b>	Complete Excavation – 100-F-2	X	11/30/01	1/26/02 (A)
<b>RC01</b>	Complete Excavation – 100-F-15	X	5/1/02	12/7/01 (A)
<b>RC01</b>	Complete Excavation – 100-F-19 (Segment 2)	X	8/12/02	8/12/02 (F)
<b>RC01</b>	Complete Excavation – 116-F-2	X	10/12/01	4/17/02 (A)
<b>RC01</b>	Complete Excavation – 126-F-1	X	6/5/02	6/14/02 (A)
<b>RC01</b>	Complete Excavation - 116-F-14	X	11/30/01	12/13/01 (A)
<b>RC01</b>	Complete Excavation - 116-F-9	X	11/26/01	4/15/02 (A)
<b>RC01</b>	Complete Excavation - 1607-F-2	X	7/30/02	6/10/02 (A)
<b>RC01</b>	Complete Excavation – 116-N-3	X	1/3/02	6/15/02 (A)
<b>RC02</b>	Complete Excavation – 618-4	X	8/15/02	11/27/02(F)**
<b>Total</b>		<b>10*</b>	<b>10</b>	<b>1 (F) 8 (A)</b>

\*HQ IPABS currently reporting 12 (HQ change request pending). Performance measure commitments revised due to formal funding guidance received from RL in January and required project rebaselining.

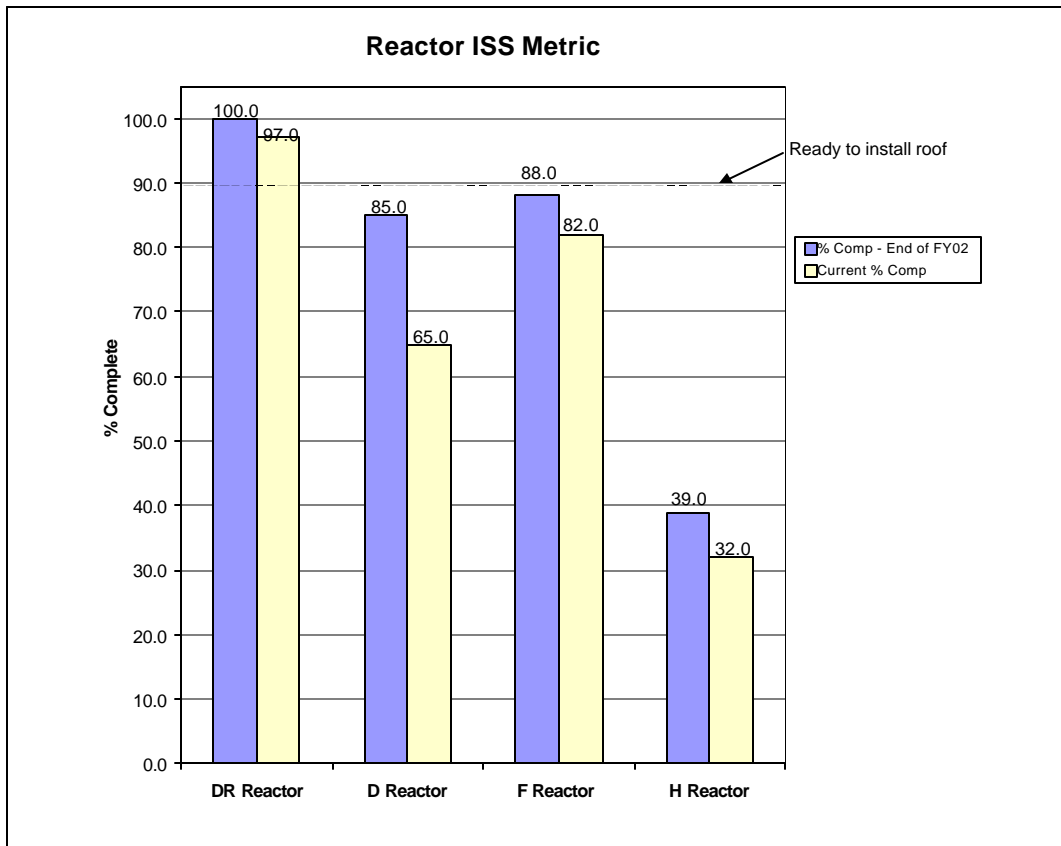
\*\*618-4 Burial Ground date extended into FY03 due to LDR material discovery.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

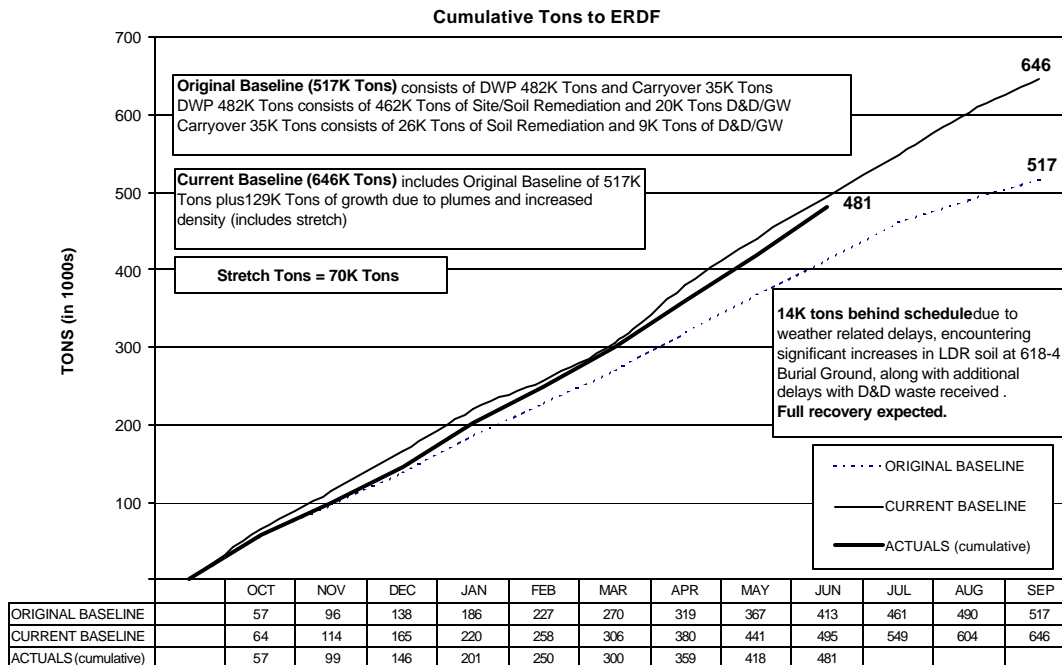
## ENVIRONMENTAL RESTORATION

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#### PERFORMANCE MEASURES/METRICS:



### Remedial Action Metric



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**STRETCH AND SUPERSTRETCH GOALS:**

<b>FY02 Remedial Action Stretch Goals</b>	<b>Approved Tons (K)</b>
Process 70,000 additional tons (for a total of 616,000 tons) of contaminated soils and debris from as many as 20 targeted waste sites and associated plumes in the Columbia River Corridor and dispose of in the ERDF by 9/30/02.	70.0K
<b>TOTAL Remedial Action Stretch Goals:</b>	<b>70.0K</b>

**OUTCOME STATUS (COST/SCHEDULE):**

**Schedule:**

<b>River Corridor Restoration</b>	<b>BCWS</b>	<b>BCWP</b>	<b>Variance</b>
	<b>\$K</b>	<b>\$K</b>	<b>\$K</b>
<b>RC01</b> <b>100 Area River Corridor Cleanup</b>	55,724	53,675	(2,049)
<b>RC02</b> <b>300 Area Cleanup</b>	6,165	5,234	(931)
<b>RC05</b> <b>River Corridor Waste Management</b>	19,263	19,180	(83)
<b>TOTAL River Corridor Restoration:</b>	<b>81,152</b>	<b>78,089</b>	<b>(3,063)</b>

**PBS-RC01 – 100 Area River Corridor Cleanup**

Schedule Variance = **(\$2049K); (3.7%)** [Last Month: (\$2739K); (5.5%)]

**Cause:** Demolition of DR Reactor safe storage enclosure (SSE) behind schedule due to delays in subcontractor key document submittals.

**Resolution:** Key documents completed, and demolition initiated the end of January. Subcontract has been modified to extend the completion date to later in the fiscal year.

**Cause:** Discovery of spent fuel elements at F Reactor FSB, excessive winds, and equipment downtime at D Reactor.

**Resolution:** Recovery schedule implemented. BCP in process to account for additional hot spots and fuel shipments.

**PBS-RC02 – 300 Area Cleanup**

Schedule Variance = **(\$931K); (15.1%)** [Last Month: (\$640K); (13.1%)]

**Cause:** 618-4 burial ground excavation behind schedule due to discovery of large quantities of land disposal restriction (LDR) material which requires additional sampling and debris segregation.

**Resolution:** A workaround has been formulated to expedite packaging of LDR material at the burial ground.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

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#### OUTCOME STATUS (COST/SCHEDULE) continued:

##### **PBS-RC05 – River Corridor Waste Management**

Schedule Variance = **(\$83K); (0.4%)** [Last Month: (\$187K); (1.1%)]

**Cause:** Inclement weather and project -related delays in shipping waste delayed ERDF operations.

**Resolution:** Schedule recovery expected.

#### **Cost:**

River Corridor Restoration	FY02 EAC	BCWP	ACWP	Variance
	\$K	\$K	\$K	\$K
<b>RC01</b> 100 Area River Corridor Cleanup	71,906	53,675	53,142	533
<b>RC02</b> 300 Area Cleanup	10,216	5,234	5,294	(60)
<b>RC05</b> River Corridor Waste Management	27,372	19,180	18,574	606
<b>TOTAL River Corridor Restoration:</b>	<b>109,494</b>	<b>78,089</b>	<b>77,010</b>	<b>1,079</b>

##### **PBS-RC01 – 100 Area River Corridor Cleanup**

Cost Variance = **\$533K; 1.0%** [Last Month: \$1418K; 3.0%]

**Cause:** Soil remediation labor, material, and sampling costs at 100 F , 100 B/C, and 100 N Areas less than planned.

**Resolution:** Underrun reflected in EAC.

**Cause:** Herbicide application and 100 Area surveillance labor savings.

**Resolution:** Underrun reflected in EAC.

**Cause:** Reactor ISS overruns due to 12 additional hot spots (suspect spent fuel pieces) found at F Reactor FSB, additional contract support for DR Reactor SSE installation, and late start on H Reactor FSB removal.

**Resolution:** Overrun reflected in EAC.

##### **PBS-RC02 – 300 Area Cleanup**

Cost Variance = **(\$60K); (1.1%)** [Last Month: (\$104K); (2.5%)]

**Cause:** Additional work required for sorting and stockpiling discovered LDR material in 618-4 burial ground.

**Resolution:** Accelerated methods for sorting/stockpiling material at the site and treatment methods at ERDF are being investigated.

##### **PBS-RC05 – River Corridor Waste Management**

Cost Variance = **\$606K; 3.2%** [Last Month: \$648K; 3.9%]

**Cause:** Lower driver and subcontract costs at ERDF due to elimination of planned overtime and renegotiated transportation subcontract.

**Resolution:** Underrun reflected in EAC.

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**ISSUES (REGULATORY/EXTERNAL/DOE):**

**100 N Area Remediation:** Results of residual radioactivity (RESRAD) modeling performed using borehole data for the 116-N-1 crib and trench indicate that the site will not attain groundwater Remedial Action Objectives (RAOs) following excavation. The results indicate that the lowest vadose zone layer contributes contaminants at levels above the RAOs.

**Status:** Ecology has sent RL a letter requesting an updated plan to identify the path forward for site remediation options. A plan is currently being developed.

**618-4 Burial Ground Remediation:** During the latter stage of the 618-4 burial ground remediation, a significant amount of land disposal restricted (LDR) material and small-sized lead debris intermixed with the soil have been encountered that are above the Detailed Work Plan (DWP) planned quantities. This is impacting the remediation schedule at the 300 Area remediation site and will also result in increased remediation costs and treatment costs at ERDF.

**Status:** A workaround has been formulated to expedite the packaging of LDR material at the burial ground. A BCP is being prepared to address the LDR discovery which reflects the impacts due to increased sampling and sorting times required for the handling of the LDR waste and the additional treatment required at ERDF.

**INTEGRATION ACTIVITIES:**

None identified at this time.

# Section C - Central Plateau Transition

## CP01 - 200 Area Remediation

233-S Facility Process Hood Before Cleanout



Process Hood After Cleanout



Containment for B Plant Pre-Filter Changeout

Data as of month-end June

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## **SECTION C – CENTRAL PLATEAU TRANSITION**

**Data as of month-end June**

### **ACCOMPLISHMENTS:**

#### **200 Area Remediation (CP01):**

##### **General:**

The ERC Central Plateau workscope, including all CP01 scope, was successfully transitioned to FH on June 30 as planned. More than 145,000 records (most of which consisted of multiple pages) were also transferred to FH. This is the final Central Plateau status update by the ERC.

##### **Central Plateau Remediation and Groundwater Monitoring Activities:**

The following Central Plateau remediation reports were issued during June:

- 200-CS-1 Operable Unit Test Pit Summary Report for FY02
- Remedial Investigation Data Quality Objectives Summary Report for the 200-PW-1 Operable Unit Dispersed Carbon Tetrachloride Vadose Zone Plume--Step 1
- Remedial Investigation Data Quality Objectives Summary Report for the 200-PW-1 Operable Unit Representative Waste Sites
- 200-MW-1 Miscellaneous Waste Group Operable Unit RI/FS Work Plan, Rev. 0, to Ecology for approval
- Remedial Investigation Data Quality Objectives Summary Report for the 200-MW-1 Operable Unit
- Borehole Summary Report for Borehole C3102 in the 216-T-26 Crib, 200-TW-1 Scavenged Waste Group Operable Unit
- Borehole Summary Report for Boreholes C3103 and C3104, and Drive Casings C3340, C3341, C3342, C3343, and C3344, in the 216-B-38 Trench and 216-B-7A Crib, 200-TW-2 Tank Waste Group Operable Unit
- 200-LW-1 and 200-LW-2 Chemical Laboratory Waste Group Operable Units RI/FS Work Plan, Rev. 0
- Remedial Investigation Data Quality Objectives Summary Report for the 200-LW-1 - 300 Area Chemical Laboratory Waste Group Operable Unit
- 200-BP-1 Prototype Hanford Barrier Annual Monitoring Report for FY01.

The final sampling and analysis plans for 200-ZP-1 and 200-UP-1 that integrate CERCLA and Atomic Energy Act groundwater monitoring requirements were also issued.

In the 200 Area, both groundwater pump and treat systems (200-UP-1 and 200-ZP-1) operated above the planned 90% availability levels in June, processing approximately 18.6 million liters of groundwater. Since system inception, these two pump and treat systems have processed approximately 2.4 billion liters of groundwater. Approximately 49.8 kilograms of carbon tetrachloride were removed by 200-ZP-1 in June. Approximately 6,617 kilograms of carbon tetrachloride have been removed by 200-ZP-1 to date. Approximately 591.5 million liters of groundwater have been transported to the ETF for processing since 200-UP-1 began operation. 343 million liters were previously processed prior to using the ETF.

#### **233-S Plutonium Concentration Facility Decommissioning:**

During June, all viewing room grating/walkways were removed, and 95% of the process hood structural steel was also removed. The process hood hard airlock and south weather enclosure roof removal was completed. Wooden toe boards, platforms, and steps were also removed from exterior scaffolding. Three drums containing nitric acid waste were shipped to T Plant for treatment and disposal. Two standard waste box containers and seven drums of transuranic waste were shipped to the Central Waste Complex.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### ACCOMPLISHMENTS continued:

##### Central Plateau Surveillance and Maintenance (S&M) Activities:

ERC Central Plateau S&M scope was successfully transitioned to FH on June 30. B Plant and PUREX facilities were successfully transitioned early to FH on June 3.

Herbicide/pesticide Phase II application was completed for the Central Plateau area.

The last waste shipment was completed for the 200 Area hexone tank stabilization task.

The 212-N/R and 224-B facilities' self-assessments were completed.

The update of the End of Life Roof Analysis Report was completed.

#### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS):

TPA Milestone	Description	Due Date	(F)/(A) Date
M-13-26	Submit Plutonium/Organic-Rich Process Waste Group (200-PW-1) Work Plan	12/31/01	12/26/01 (A)
M-13-00L	Submit 3 200 NPL RI/FS (RFI/CMS) Work Plans	12/31/01	12/26/01 (A)
M-15-40A*	Complete U Pond/Z Ditches Cooling Water Group Field Work Through Sample Collection and Analysis	9/30/02	Deleted
M-15-42B*	Submit 200-TW-2 OU Draft A Remedial Investigation Report to Ecology	9/30/02	Deleted
M-15-41B**	Submit 200-TW-1 and 200-TW-2 OU Remedial Investigation Report to EPA and Ecology and includes Past Practice Waste Sites in 200-PW-5 Fission Product - Rich Process Waste Group	10/30/02	10/30/02 (F)
M-13-00M**	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan for 200-IS-1, Tanks/Lines/Pits Diversion Boxes OU. Includes waste sites in 200-ST-1, Septic Tank and Drain Fields OU	12/31/02	12/31/02 (F)
M-15-38A**	Submit 200-CW-1 Gable Mountain Pond/B Pond and Ditch Cooling Water Group Feasibility Study including 216-N-1, 216-N-2, 216-N-3, 216-N-4, 216-N-5, 216-N-6, 216-N-7, UPR-200-E-34, 600-118, 200-N-3, 600-254, 2607-N, 2607-R, UPR-200-N-1, and UPR-200-N-2 Past Practice Waste Sites and Submit 200-CW-1 Gable Mountain Pond/B Pond and Ditch Cooling Water Group Proposed Plan/Proposed RCRA Permit Modification	3/31/03	3/31/03 (F)

\*M-15-40A and M-15-42B were deleted per Tri-Party Agreement change request M-015-02-01 on June 5.

\*\*Responsibility for accomplishment of future Central Plateau TPA milestones was transitioned to FH on June 30 as planned.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### PERFORMANCE OBJECTIVES:

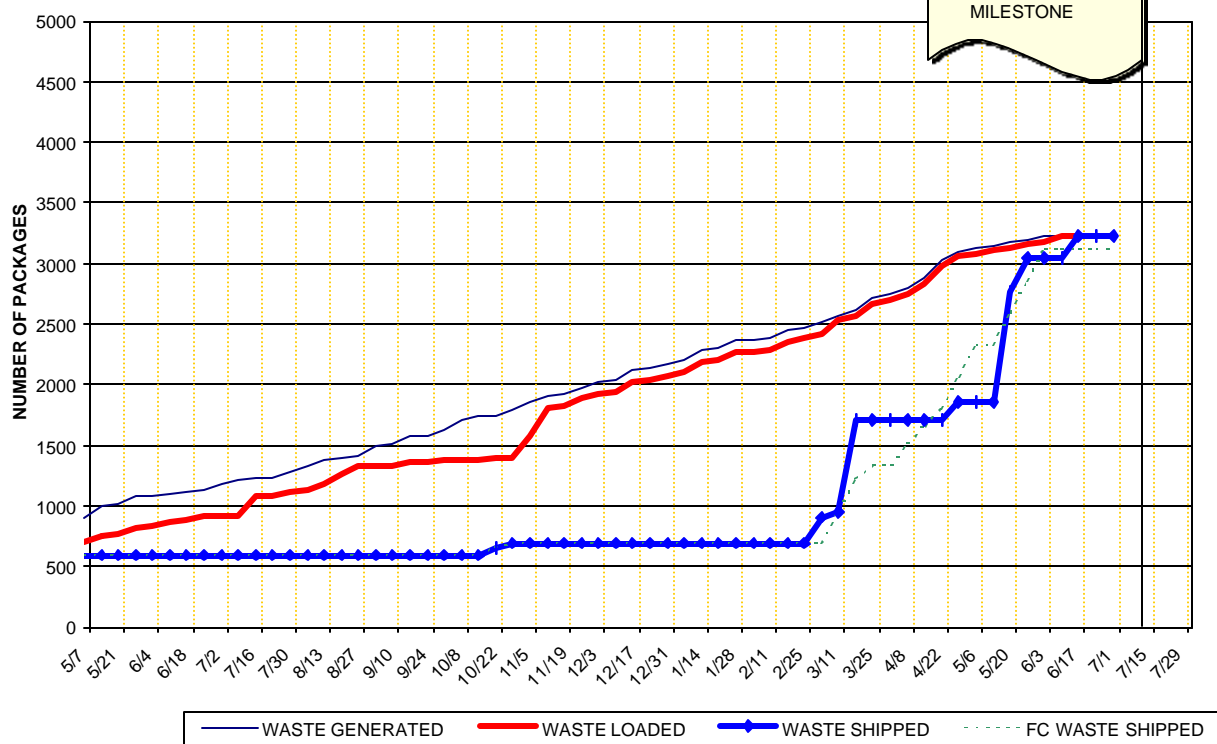
PI	Task	Status
<div style="display: flex; align-items: center;"> <div style="background-color: green; color: white; padding: 2px 5px; margin-right: 5px;">GREEN</div> <div> <b>* 233-S Plutonium Concentration Facility Dismantlement:</b>            Disposition Surplus Building         </div> </div>	Dismantle and remove 8 vessels from the 233-S Process Hood by 6/30/02.  Dismantle and remove all remaining vessels from the 233-S Process Hood by 6/30/02. <b>(Stretch)</b>	Vessel removal was completed in March. Efficiency in extracting process vessels from the 233-S facility has enabled BHI to complete removal of all the vessels one year ahead of schedule. The original baseline called for removal of 8 vessels by June 30, 2002. In that timeframe, all 15 vessels within the facility were actually removed. All scope was completed on June 13, 2002. The Notice of Completion package was transmitted to RL for approval on July 1, 2002.

\*Multi-year PI developed in FY01.

### 233-S Metric

#### 233-S WASTE GENERATED, LOADED, AND SHIPPED

Status through June 30, 2002



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**PERFORMANCE MEASURES/METRICS:**

Technology Deployment	PBS	Planned Date	(F)/(A) Date
Protean Gas Flow Proportional Counter	CP01		10/01 (A)
ZipWall	CP01		11/01 (A)
*Small-Diameter Geophysical Logging System Passive Neutron Logging Probe	CP01	3/31/02	2/02 (A)
*Small-Diameter Geophysical Logging System Gamma Logging Probe	CP01	3/31/02	2/02 (A)
Silicone Rubber Insulated Heaters	CP01		3/02 (A)
Eagle 5000 Ionizer	CP01		6/02 (A)

\* ERC identified two technologies for Central Plateau Transition to be deployed during FY02.

**STRETCH AND SUPERSTRETCH GOALS:**

**FY02 233-S Stretch Goals**

GREEN

**\*Dismantle and remove all remaining vessels from the 233-S Process Hood by 6/30/02.**

\*Multi-year PI developed in FY01.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JUNE 2002

#### OUTCOME STATUS (COST/SCHEDULE):

##### Schedule:

Central Plateau Transition	BCWS	BCWP	Variance
	\$K	\$K	\$K
CP01 200 Area Remediation	25,565	25,395	(170)
<b>TOTAL Central Plateau Transition:</b>	<b>25,565</b>	<b>25,395</b>	<b>(170)</b>

##### PBS-CP01 – 200 Area Remediation

Schedule Variance = **(\$170K); (0.7%)** [Last Month: (\$334K); (1.5%)]

**Cause:** Minor delays in 200 Area RARA and ASA/SAR work.

**Resolution:** Workscope will transfer to FH on June 30. Any remaining scope will be addressed in the final contract closeout BCP.

**Cause:** Minor delays in 200-PW-1 and 200-CW-1 operable unit remediation activities.

**Resolution:** Workscope will transfer to FH on June 30. Any remaining scope will be addressed in the final contract closeout BCP.

##### Cost:

Central Plateau Transition	FY02 EAC	BCWP	ACWP	Variance
	\$K	\$K	\$K	\$K
CP01 200 Area Remediation	23,101	25,395	22,776	2,619
<b>TOTAL Central Plateau Transition:</b>	<b>23,101</b>	<b>25,395</b>	<b>22,776</b>	<b>2,619</b>

##### PBS-CP01 – 200 Area Remediation

Cost Variance = **\$2619K; 10.3%** [Last Month: \$2211K; 9.9%]

**Cause:** Technology deployment utilizing Geoprobe® instrumentation in lieu of installing drive casings at U Pond/Z Ditches resulted in labor and contract savings.

**Resolution:** Underrun reflected in EAC.

**Cause:** D&D at 233-S facility performed with less labor/material resources.

**Resolution:** Underrun reflected in EAC.

**Cause:** Reduction in S&M survey frequency/requirements/equipment and reduced RARA equipment costs; offset by material, disposal, and labor overruns for REDOX asbestos removal.

**Resolution:** Underrun reflected in EAC.

**Cause:** Document preparation and disposal cost underruns at five waste group operable units; PFP well installation completed early and resulted in savings.

**Resolution:** Underrun reflected in EAC.

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**ISSUES (REGULATORY/EXTERNAL/DOE):**

None identified at this time.

**INTEGRATION ACTIVITIES:**

Central Plateau transition entered its final month with early transition of B Plant and PUREX on June 3. All remaining Central Plateau transition scope was successfully transitioned by June 30. The Transfer Agreement was signed by BHI and FH, and delivered to RL on June 27.

## Section D - Site Integration & Infrastructure

*SS03 - Groundwater Management & Monitoring*

*SS04 - Groundwater/Vadose Zone Integration*



Rotary Drilling in the 200 Area



Dual Wall Percussion Rig at  
Immobilized Low Activity Wall  
Drill Site (200 East Area)

Data as of month-end June

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
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## **SECTION D – SITE INTEGRATION & INFRASTRUCTURE**

**Data as of month-end June**

### **ACCOMPLISHMENTS:**

#### **General:**

The ERC groundwater management and groundwater vadose zone scope (SS03, SS04) was successfully transitioned to FH on June 30 as planned. This is the final Site Integration and Infrastructure status update by the ERC.

#### **Groundwater Management and Monitoring (SS03):**

RL direction was received to proceed with the soil gas survey at the 618-10 Burial Ground. Results will be used in well location selection.

The revised groundwater monitoring plan for the 100 N Area RCRA facilities was transmitted to RL and Ecology.

#### **Groundwater/Vadose Zone (GW/VZ) Integration (SS04):**

The GW/VZ Integration Project status and strategy (June 2002) document was delivered to RL.

The software user's guides for the System Assessment Capability (SAC) Inventory, Release, and Transport Module and Impact Module were issued. These user's guides will be used to train new staff and as reference documents for reviewers and users of assessments performed with SAC.

The rerun of the initial SAC assessment was completed in June. Requirements for future assessments to be performed with SAC were also identified. These requirements will be used to identify necessary software improvements and data needs for FY03 planning.

Draft reports were completed for the prototype geologic, prototype vadose zone hydraulic property, and prototype groundwater hydraulic property databases. Responses/dispositions were also prepared for all remaining unresolved technical issues entered into the issues management database.

Field measurements (cross borehole radar, ground-penetrating radar, and neutron probe) were initiated at the clastic dike vadose zone transport study site during June.

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**MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS):**

TPA Milestone	Description	Due Date	(F)/(A) Date
M-24-53	Install Two (2) Additional Wells at SST WMA TX-TY	12/31/01	11/8/01 (A)
M-24-54	Install One (1) Additional Well at SST WMA T	12/31/01	10/18/01 (A)
M-24-55	Install Two (2) Additional Wells at SST WMA S-SX	12/31/01	11/8/01 (A)
M-24-00M	Install RCRA Groundwater Monitoring Wells at Rate of Up to 50 in Calendar Year 2001 if Required	12/31/01	11/8/01 (A)
M-24-00N*	Install RCRA Groundwater Monitoring Wells at Rate of Up to 50 in Calendar Year 2002 if Required	12/31/02	*

\*Currently being negotiated under Hanford Site C3T process. Responsibility for accomplishment of this milestone was transitioned to FH on June 30 as planned.

**PERFORMANCE OBJECTIVES:**

None planned in FY02.

**PERFORMANCE MEASURES/METRICS:**

ERC identified one technology for Site Integration and Infrastructure to be deployed during FY02.

Technology Deployment	PBS	Planned Date	(F)/(A) Date
*Advanced Tensiometer	SS04	3/31/02	9/30/02 (F)

\*Deployment will be under the GW/VZ Project, which will be under FH in the 4<sup>th</sup> quarter.

**STRETCH AND SUPERSTRETCH GOALS:**

None planned in FY02.

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**OUTCOME STATUS (COST/SCHEDULE):**

**Schedule:**

Site Integration & Infrastructure	BCWS	BCWP	Variance
	\$K	\$K	\$K
SS03 – Groundwater Management & Monitoring	12,300	11,586	(714)
SS04 - Groundwater/Vadose Zone Integration	7,819	7,458	(361)
<b>TOTAL Site Integration &amp; Infrastructure:</b>	<b>20,119</b>	<b>19,044</b>	<b>(1,075)</b>

**PBS-SS03 – Groundwater Management and Monitoring**

Schedule Variance = **(\$714K); (5.8%)** [Last Month: (\$629K); (5.8%)]

**Cause:** PNNL groundwater modeling and monitoring behind schedule due to late computer hardware/software purchase and awaiting outcome of C3T groundwater strategy to complete monitoring documents and field tests, and well installation locations and waste management delayed pending soil-gas survey and regulator decisions.

**Resolution:** Workscope will transfer to FH on June 30. Any remaining scope will be addressed in the final contract closeout BCP.

**PBS-SS04 – Groundwater/Vadose Zone Integration**

Schedule Variance = **(\$361K); (4.6%)** [Last Month: (\$657K); (9.6%)]

**Cause:** S&T behind schedule due to staff availability and subcontract negotiations.

**Resolution:** Workscope will transfer to FH on June 30. Any remaining scope will be addressed in the final contract closeout BCP.

**OUTCOME STATUS (COST/SCHEDULE) continued:**

**Cost:**

Site Integration & Infrastructure	FY02 EAC	BCWP	ACWP	Variance
	\$K	\$K	\$K	\$K
SS03 – Groundwater Management & Monitoring	11,894	11,586	10,934	652
SS04 - Groundwater/Vadose Zone Integration	7,412	7,458	7,027	431
<b>TOTAL Site Integration &amp; Infrastructure:</b>	<b>19,306</b>	<b>19,044</b>	<b>17,961</b>	<b>1,083</b>

**PBS-SS03 – Groundwater Management and Monitoring**

Cost Variance = **\$652K; 5.6%** [Last Month: \$443K; 4.4%]

**Cause:** Underrun in PNNL data evaluation and support activities.

**Resolution:** Workscope will transfer to FH on June 30.

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**OUTCOME STATUS (COST/SCHEDULE) continued:**

**PBS-SS04 – Groundwater/Vadose Zone Integration**

Cost Variance = **\$431K; 5.8%** [Last Month: \$362K; 5.8%]

**Cause:** Less effort required in development of Virtual Library components and development of System Assessment Capability (SAC) software user's guide/documentation, and S&T tasks.

**Resolution:** Workscope will transfer to FH on June 30.

**ISSUES (REGULATORY/EXTERNAL/DOE):**

None identified at this time.

**INTEGRATION ACTIVITIES:**

Central Plateau transition entered its final month with early transition of B Plant and PUREX on June 3. All remaining Central Plateau transition scope was successfully transitioned by June 30. The Transfer Agreement was signed by BHI and FH, and delivered to RL on June 27.